

# **PCMCIA 10/100M Fast Ethernet Card**

## **User's Manual**

Rev 2.0



## **Regulatory compliance**

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. This equipment also complies with CE EN55022 Class B and VCCI V3 Class B specifications. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the parties responsible for compliance could void the user's authority to operate the equipment.

## **About this manual**

This user's manual describes how to install and operate your Ethernet card. Please read this manual before you install the product.

This manual includes the following topics:

- Product description, features and specifications.
- Hardware installation procedure.
- Software installation procedure.
- Trouble shooting procedures

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## ***Chapter 1***

### **Introduction**

Thank you for purchasing the Ethernet card. This high-speed Ethernet card complies with the PCMCIA standard and uses a female RJ-45 connector to connect to the network.

The Ethernet card is switchless and software configurable.

#### **Features (for dongle-less PC Card)**

- Dongle-less design that integrates RJ-45 connector onto the PC card
- No moving parts to break and no media coupler to lose
- Complies with IEEE 802.3u 100Base-TX and IEEE 802.3 10Base-T
- PCMCIA 2.1 and JEIDA 4.2 compliant and later
- PC Card standard 68-pin 16-bit PCMCIA interface
- Support all popular Network Operating Systems
- Supports hot swap card insertion and removal
- 10/100Mbps auto-sensing
- Full/half-duplex auto-negotiation for both 10Base-T and 100Base-TX
- Switchless configuration setting

## Features (for dongle type PC Card)

- Type II credit-card size (5.0 mm)
- Complies with IEEE 802.3u 100Base-TX and 802.3 10Base-T protocols.
- PCMCIA 2.1 and JEIDA 4.2 compliant and later
- PC Card standard 68-pin 16-bit PCMCIA interface
- Supports all popular operating systems
- Supports hot swap card insertion and removal
- 10/100Mbps auto-sensing
- Full/half-duplex auto-negotiation for both 10Base-T and 100Base-TX
- Switchless configuration setting

## Technology overview

### LAN

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LAN (Local Area Network) is a communications network that serves users within a confined geographical area. It is made up of servers, workstations, a network operating system, and a communications link.

### Ethernet

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Ethernet is the most widely-used LAN access method, which is defined by the IEEE 802.3 standard. Ethernet is normally a shared media LAN. All stations on the segment share the total bandwidth, which is 10 Mbps (Ethernet), 100 Mbps (Fast Ethernet), or 1000 Mbps (Gigabit Ethernet). With switched Ethernet, each sender and receiver pair has the full bandwidth.



## **Fast Ethernet**

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Also called 100BaseT, it is a high-speed version of Ethernet (IEEE 802.3u standard). 100BaseT transmits at 100 Mbps rather than 10 Mbps. Like regular Ethernet, Fast Ethernet is a shared media LAN. All nodes share the 100 Mbps bandwidth. 100BaseT uses the same CSMA/CD access method as regular Ethernet with some modification. Three cabling variations are provided. 100BaseTX uses two pairs of Category 5 UTP, 100BaseT4 uses four pairs of Category 3, and 100BaseFX uses multi-mode optical fibers and is primarily intended for backbone use.

This concludes the first chapter. The next chapter deals with the hardware installation of the Ethernet card.

## ***Chapter 2***

### **Hardware installation**

#### **(for Dongle-less PC Card)**

This section covers inserting your Ethernet card in the notebook's PCMCIA slot, and connecting the card to a network.

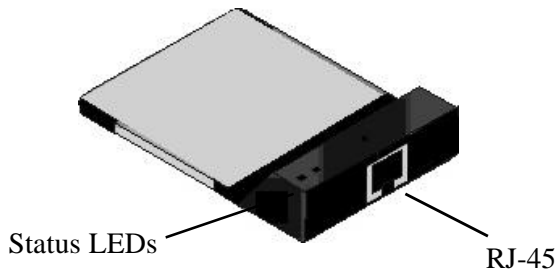
#### **What's in the package**

Please ensure that the following items are included in your package. If any items are missing, contact your dealer.

- PCMCIA 10/100Mbps Ethernet card
- CD-ROM (includes device drivers and this user's manual)
- Quick Installation Guide
- Hard Case

#### **Hardware description**

The Ethernet card is encased in a stainless compact frame and has a 68-pin connector for attaching to the notebook's PCMCIA slot, and an RJ-45 connector for use with 10BaseT Ethernet or 100BaseTx Fast Ethernet networks.



## Inserting the Ethernet card

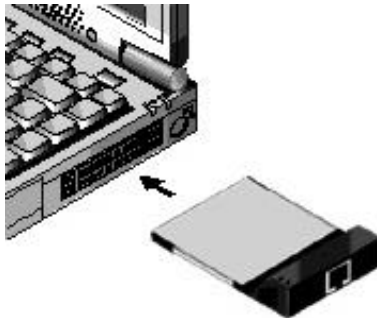
### Note!



*These instructions apply to most notebook computers. For detailed information on inserting PC cards into your notebook, consult the notebook user's manual.*

Follow the procedure below to install the Ethernet card.

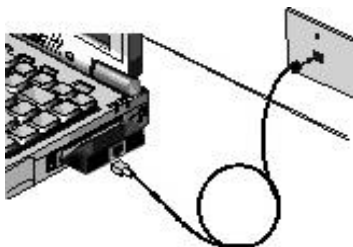
1. With the card's 68-pin connector facing the notebook's PCMCIA slots, slide the card all the way into an empty slot.  
**Do not force the connection!**



2. Connect to a network. (See *Connecting to a LAN* that follow.)

## Connecting to a LAN

To use the Ethernet card's Ethernet capability, you can connect to a port on a hub or to an RJ-45 phone jack with another male-to-male RJ-45 line or connector.



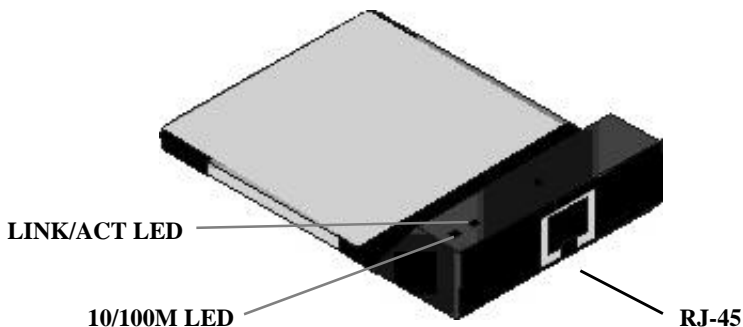
*Connecting to an RJ-45 phone jack*



*Connecting to a hub*

## Status LEDs

The following illustration shows the Ethernet card LEDs:



The following table describes the meaning of the LEDs:

LED	MEANING
<b>10/100M</b>	Indicates the connection speed. When off, the connection speed is 10 Mbps. When on, the connection speed is 100 Mbps.
<b>LINK/ACT</b>	Indicates link status and transmit/receive activity. It is normally off. When off, indicates that the link is inactive. When lit, indicates that the link is active. When there is packet transmit or receive activity, this LED is blinking.

## Ejecting the Ethernet card

After you have disconnected the RJ-45 connectors, you can eject the Ethernet card from the notebook's PC Card slot.

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**Note!**

*In Win 95/98/ME/2000 operating systems, you do not have to power down the notebook to remove the card. The card is hot-swappable—you can remove the card when the notebook is powered on. However, Microsoft recommends that you stop the card. Refer to your Windows 95/98/ME/2000 online help for information on stopping the Ethernet card.*

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Most notebooks have an eject lever or button for ejecting PC cards from the PC slots. Consult your notebook's user's manual for details.

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**Warning!**

To prevent data loss, do not eject the Ethernet card when a data transmission is taking place. Exit your communications program normally, stop the card if necessary, and then remove the card.

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## **Hardware installation (for Dongle Type PC Card)**

This section covers inserting your Ethernet Card in the notebook's PCMCIA port, and connecting the card to a network.

### **What's in the package**

Please ensure that the following items are included in your package. If any items are missing, contact your dealer.

- PCMCIA 10/100 Mbps Ethernet Card
- Ethernet media coupler with 15-pin flat connector at one end and female RJ-45 connector at the other end.
- CD-ROM (includes device drivers and this user's manual)
- Quick installation guide
- Hard case

### **Hardware description**

The Ethernet Card is encased in a stainless compact frame and has a 68-pin connector for attaching to the notebook's PCMCIA port, and a 15-pin flat connector for connecting to the Ethernet adapter.

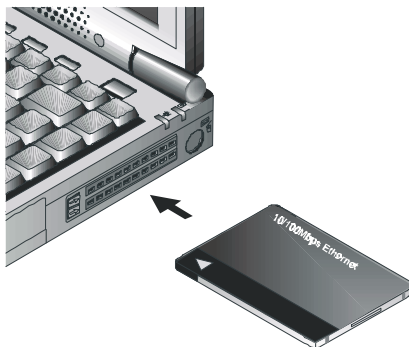
## Inserting the Ethernet Card



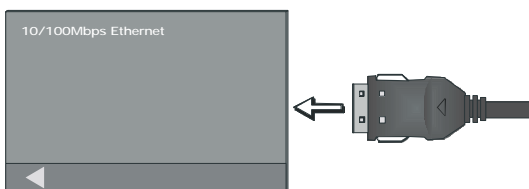
*These instructions apply to most notebook computers. For detailed information on inserting PC cards into your notebook, consult the notebook user's manual.*

Follow the procedure below to install the Ethernet Card.

1. With the card's 68-pin connector facing the notebook's PCMCIA slots, slide the card all the way into an empty slot.  
**Do not force the connection!**

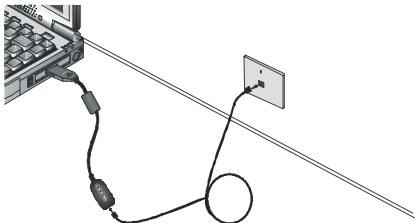


2. Plug the RJ-45 adapter into the Ethernet Card's 15-pin connector.

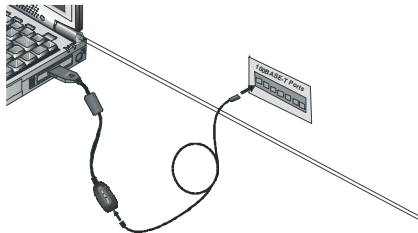


3. Connect the RJ-45 adapter to the network.

You can connect the Ethernet adapter cable to a port on a hub or to a RJ-45 phone jack with another male-to-male RJ-45 line or connector.



*Connecting to a RJ-45 phone jack*



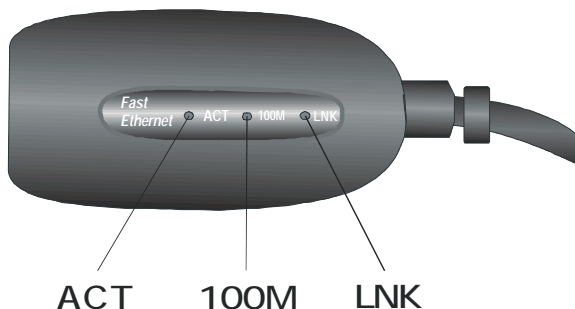
*Connecting to a hub*

After you have inserted the Ethernet Card, you must install the drivers. If your operating system is Windows 98, Window 95, or Windows NT, refer to Chapter 3. If your operating system is Windows NT 3.51 or another DOS environment network operating system, refer to Chapter 4. If your operating system is Linux, refer to Chapter 5.



## Media Coupler LEDs

The following illustration shows the Media Coupler LEDs:

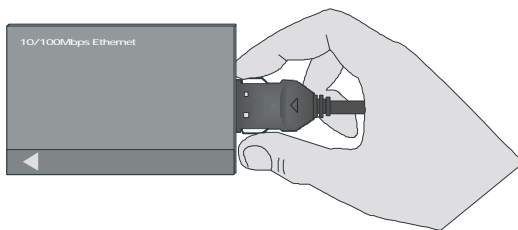


The following table describes the meaning of the LEDs:

LED	MEANING
<b>ACT</b>	Indicates transmit or receive activity. It is normally off. When there is packet transmit or receive activity, this LED is on.
<b>100M</b>	Indicates the connection speed. When off, the connection speed is 10 Mbps. When on, the connection speed is 100 Mbps.
<b>LNK</b>	Indicates whether the link is active or not. When lit, indicates that the link is active. When off, indicates that the link is inactive.

## Disconnecting the Ethernet Card

The Ethernet Card RJ-45 connector is designed to lock in place when connected to the Ethernet Card. The following illustration shows the location of the clips:



Do not pull on the RJ-45 cable to disconnect the RJ-45 connector from the card. You may damage the RJ-45 connector pins as well as the Ethernet Card.

After you have disconnected the RJ-45 cable, you can eject the Ethernet Card from the notebook's PC Card slot.



*In Win 95/98 operating systems, you do not have to power down the notebook to remove the card. The card is hot-swappable—you can remove the card when the notebook is powered on. However, Microsoft recommends that you stop the card. Refer to your Win 95/98 online help for information on stopping the Ethernet Card.*

Most notebooks have an eject lever or button for ejecting PC cards from the PC ports. Consult your notebook's user's manual for details.



Do not eject the Ethernet Card when a data transmission is taking place. Exit your communications program normally, stop the card if necessary, and then remove the card.

This concludes Chapter 2. The next chapter covers driver installation for Windows 95/98/NT/2000/ME operating systems.

***NOTES***

## *Chapter 3*

# **Driver installation for Win 95/98/ME/2000/NT**

The following sections cover Ethernet card driver installation in the Windows 95/98/NT/2000/ME operating systems.

## **Driver installation for Windows 95**

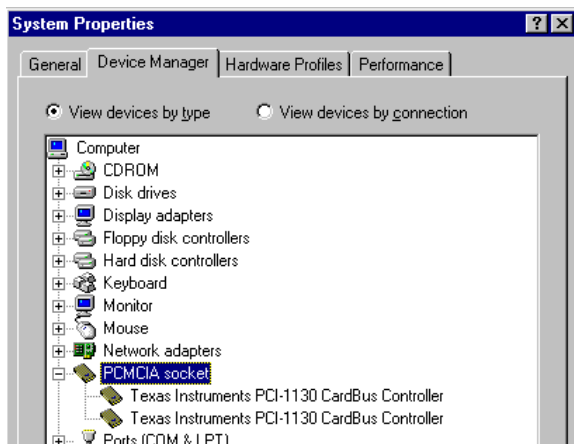
### **Before Installation**

There are two popular versions of Windows 95, one is for retail version (ver 4.00.950), and the other is OEM Service Release 2 (ver 4.00.950B). To know which version you are using, click to run the **System** icon in **Control Panel**. You will see the following window pops up.



From the General tab, the system information shows you the version number of your windows.

Next, check whether your notebook PCMCIA controller supports CardBus. You can check it from **Device Manager**. If the PCMCIA socket is shown to be **PCIC or TCIC compatible Controller**, then the notebook cannot support CardBus.



## Driver installation for Windows 95 OSR2

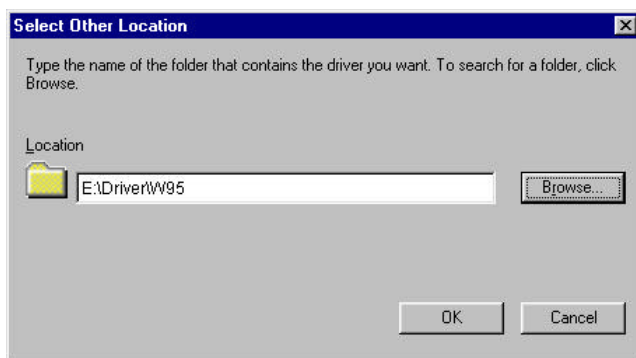
1. Insert the Ethernet card into an available PCMCIA slot in your notebook.
2. After Windows 95 detects the card, the *Update Device Driver Wizard* window appears:



3. Insert the driver disc and click **Next** to continue the installation. Windows searches for the driver and the following screen appears:



4. Click **Other Locations** to continue, the following screen appears:

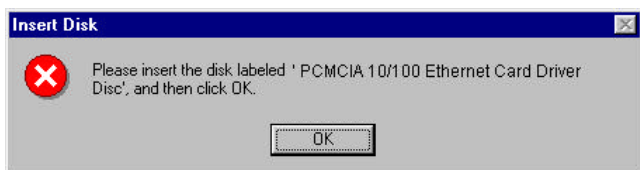


5. Type “**E:\Driver\W95**” where “**E**” is your CD-ROM drive letter. Then click **OK**. The following screen appears:

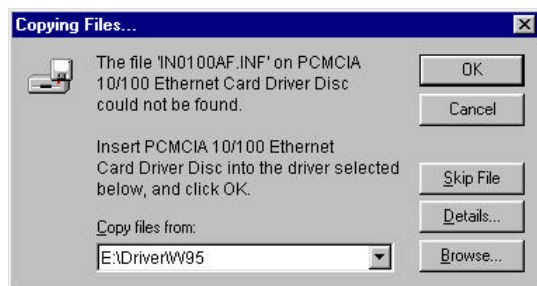




6. Click **Finish** to continue. Windows may prompt you the following window to ask you insert the disc.



7. Click **OK** to continue.



8. Again type "**E:\Driver\W95**" where "**E**" is your CD-ROM drive letter and click **OK**. After copying the driver files. Windows 95 prompts you to restart the system. Click **Yes** to continue the installation.

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**Note!**

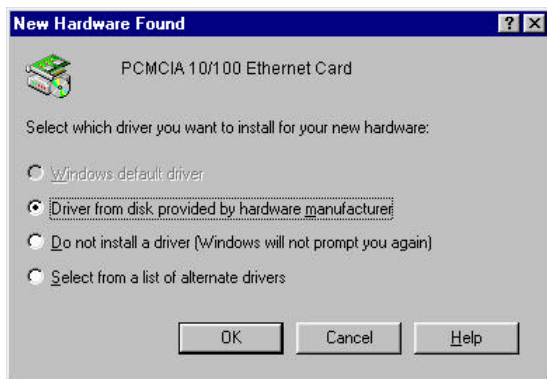


*If you did not install the Windows 95 OSR2 from your hard drive, Windows will prompt you to input the path to the Windows 95 CD-ROM. Follow the instructions on your screen, then click **OK** to continue.*

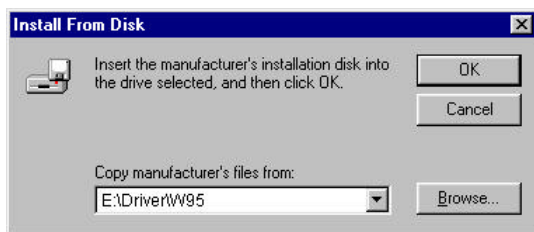
---

## Install Drivers on the Windows 95 Retail version

1. Insert the Ethernet card into an available PCMCIA slot in your notebook.
2. After Windows 95 detects the card, the *Update Device Driver Wizard* window appears:



3. Click **OK**. The Windows prompt you to give the path of driver files.

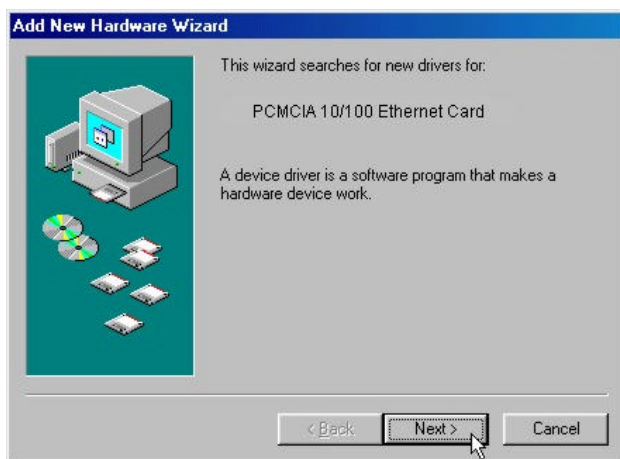


4. Type **“E:\Driver\W95”** where **“E”** is your CD-ROM drive letter. Insert driver disc into CD-ROM drive. Then click **OK**.
5. The windows will start copying files from disc and install the drivers. After the step, the installation is complete.

## Driver installation for Windows 98

Follow the steps below to install the Ethernet card drivers for Windows 98.

1. Insert the Ethernet card into an available PCMCIA slot on your notebook.
2. After Windows 98 detects the Ethernet card, the *Add New Hardware Wizard* window appears:



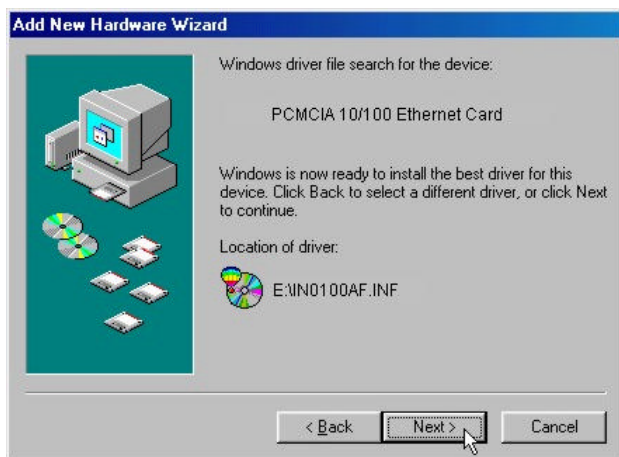
3. Click **Next** to continue the installation. A screen appears prompting you to select an installation method:



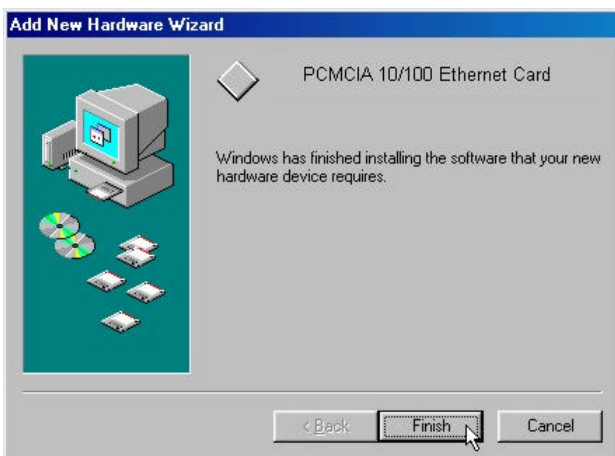
4. Select **Search for the best driver for your device. (Recommended)** and click **Next**. The following screen appears:



5. Ensure that the **CD-ROM drive** box is checked.
6. Insert the driver CD-ROM into your CD-ROM drive and click **Next**. The following screen appears:



7. Click **Next**. Windows 98 copies files to your hard disk drive, and you see the following screen:



8. Click **Finish**.

**Note!**



*Windows 98 may need to copy required system files and will prompt you to input the path to the files. Follow the instructions on your screen, then click **OK** to continue.*

You should reboot your system to finish the installation.

## Driver installation for Windows ME

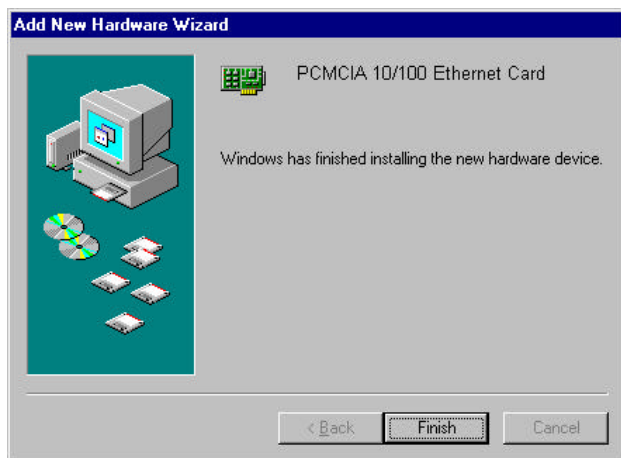
Follow the steps below to install the Ethernet card drivers for Windows ME.

1. Insert the Ethernet card into an available PCMCIA slot on your notebook.
2. After Windows ME detects the Ethernet card, the *Add New Hardware Wizard* window appears:



3. Select **Automatic search for a better driver (Recommended)** and insert the driver disc into CD-ROM drive. Click **Next** to continue.
4. The system will find the setup files and follow the instruction of the setup file to copy drivers. After the drivers were copied, the following screen appears:





**Note!**



*If you did not install the Windows ME from your hard drive, Windows will prompt you to input the path to the Windows ME CD-ROM. Follow the instructions on your screen, then click **OK** to continue.*

5. Click **Finish**.

You should reboot your system to finish the installation.

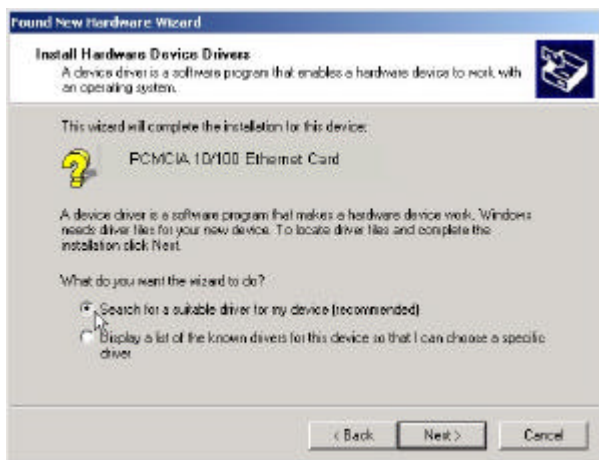
## Driver installation for Windows 2000

Follow the steps below to install the Ethernet card drivers for Windows 2000.

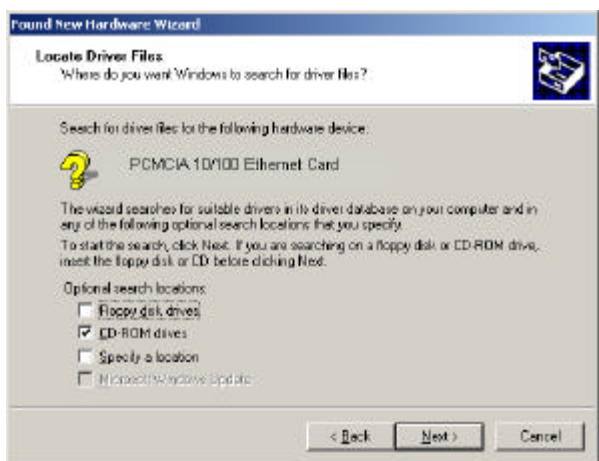
1. Insert the Ethernet card into an available PCMCIA slot on your notebook.
2. After Windows 2000 detects the Ethernet card, the *Found New Hardware Wizard* window appears:



3. Click **Next** to continue the installation. A screen appears prompting you to select an installation method:

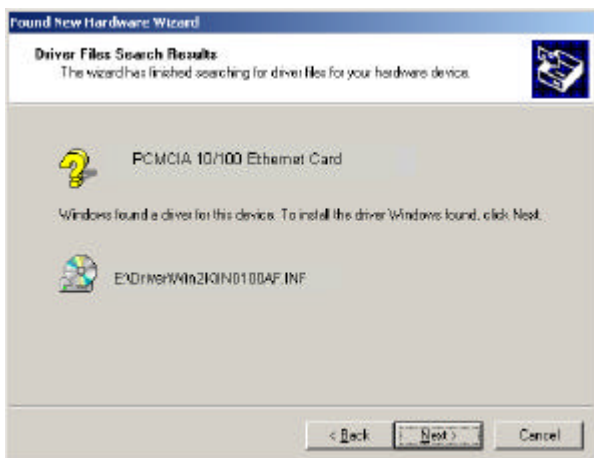


4. Select **Search for a suitable driver for my device (recommended)** and click **Next**. The following screen appears:

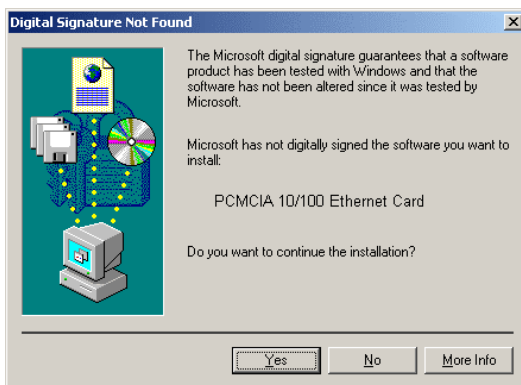


5. Ensure that the **CD-ROM drives** box is checked and insert the driver disc into CD-ROM drive. Click **Next** to continue.

After the system search the best driver, the following search results window appears:



6. Click **Next** to continue. The following screen appears:



7. Click **Yes** to continue the installation.
8. Windows copies files and the following screen appears:



9. Click **Finish** to complete the installation.

You should reboot the computer to insure a successful installation.

## Driver installation for Windows NT 4.0

This installation procedure assumes that you have installed the network component on your computer.

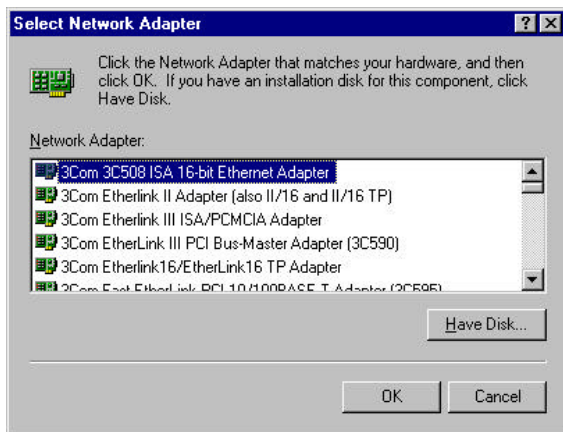
To check whether the network component has been installed, double click the **Network** icon in the **Control Panel**. If it has not been installed, refer to the Windows NT 4.0 installation guide for instructions on installing the component.

Follow the steps below to install the driver.

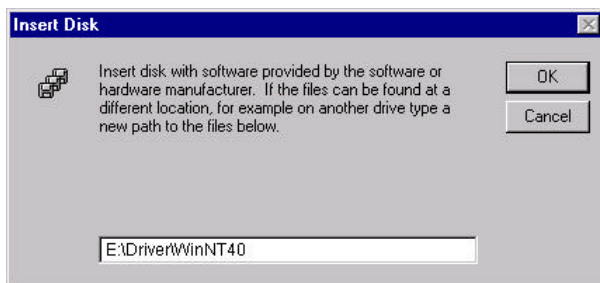
1. Insert the Ethernet card into an available PCMCIA slot on your notebook.
2. Log in to NT 4.0 as “**Administrator**”.
3. Double click the **Network** icon in the **Control Panel**, and select the **Adapters** tab as shown in the following screen:



- Click **Add** to add a new adapter. The following screen appears:

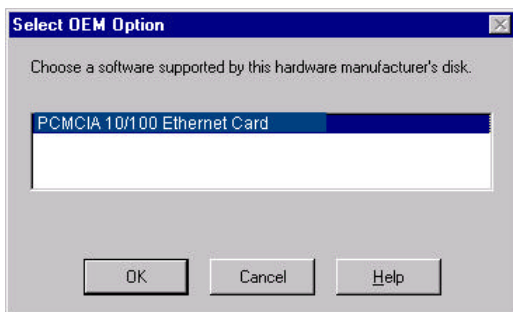


- Click **Have Disk**. The following screen appears:

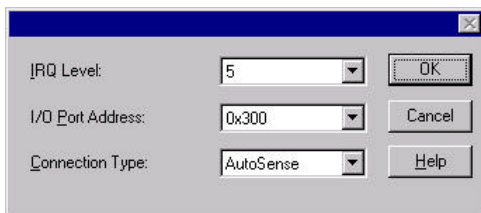


- Type **“E:\Driver\WinNT40”** where **“E”** is your CD-ROM drive letter. Insert the driver disk, and click **OK**.

After finding the installation file, the *Select OEM Option* window is displayed.



7. Click **OK**. A screens appears prompting you to input the IRQ, I/O port address, and connection type:



8. Select the desired resources and connection type.

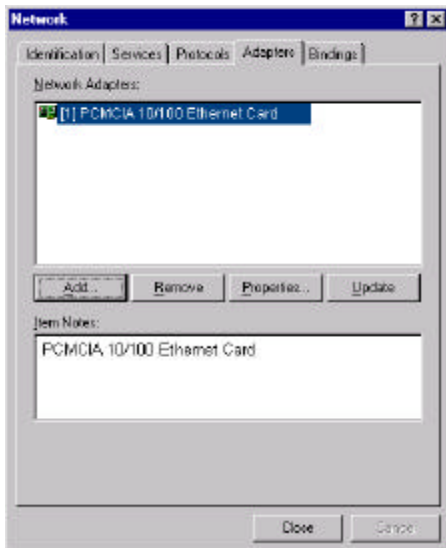
**Note!**



*You must select resources that are not being used by another device; otherwise, you will have a system conflict error. In case of a system conflict error, try another setting and continue.*

9. Click **OK** to continue. Windows will configure the Ethernet card. You are returned to the *Network* window.





10. Click **Close** to exit the *Network* window. Windows NT 4.0 will bind the adapter with the network component and you will be prompted to restart the system.

When Windows NT is finished binding the adapter to the network component, you are prompted to restart the system.

11. Click **Yes** to finish the installation.

## ***Chapter 4***

### **Driver installation for DOS environments**

This section covers Ethernet Card driver installation for DOS environment operating systems.

#### **System Requirements**

<b>Hardware Requirements</b>	Notebook equipped with Type II PC Card slot and PC Card controller (compliant Rev. 2.1 or higher)
<b>Software Requirements</b>	The Card & Socket service drivers should comply with PCMCIA Release 2.1 or higher

### **Driver installation**

You must install the Ethernet Card drivers before your computer system can recognize your Ethernet Card. The following sections cover client driver installation.

#### **Driver installation program**

INSTALL is the Ethernet Card driver installation program. The INSTALL program automatically selects the most suitable option settings, or you can perform a custom configuration where you individually select each setting.

## Quick installation

This section gives a brief overview of the installation process.

1. Card and Socket Services software should be bundled with your computer; if it is not, contact your dealer. It is recommended that you use this software when installing your Ethernet Card.

A system with Card and Socket Services installed allows the PCMCIA card to automatically configure itself. While the system is on, available system resources and insertion or removal of the card will automatically be detected.

2. Run the INSTALL.EXE program found on your driver disc. The install program guides you through the installation process and will install the network drivers needed to run the card on your network operating system.

If you successfully completed the installation, go to step 5. If installation was unsuccessful, then go to the next step.

3. If you are using Card and Socket Services, select auto-configuration. The install program will prompt Card and Socket Services to assign an available hardware resource configuration.
4. If you do not have Card and Socket Services or if your card does not work with your version of Card and Socket Services, the enabler program can communicate directly with the PCMCIA controller on your system. However, you must select hardware resource settings that are not being used by other devices; otherwise, your PC system may have device conflicts.

5. Insert the Ethernet Card into the PCMCIA socket. Then attach the network cable to the card.
6. Restart your computer and connect to your network.

## The Install program

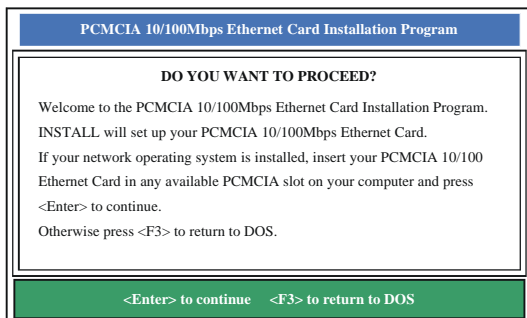
Before you can use your Ethernet Card, you need to install and modify some files in your computer system. You can make these changes manually, or you can let the INSTALL.EXE program make them for you.

This section explains how you can use the INSTALL.EXE program to install the enablers and the files needed by the network operating system.

### Using the Install program

To run the INSTALL.EXE program, follow these instructions:

At the DOS prompt type “INSTALL” and press [Enter]. You see an opening screen, which welcomes you to the program and asks if you wish to continue.



Press [Enter] to continue the installation.

The program prompts you for the directory where you want to install the driver files. You can choose the default directory name or enter a new name. Then, press <Enter> to continue with the installation.

PCMCIA 10/100Mbps Ethernet Card Installation Program

**ENTERING THE INSTALLATION PATH**

INSTALL will create a directory with all of the necessary files to use the PCMCIA 10/100Mbps Ethernet Card. Please enter the drive and directory name, or confirm the default directory.

C:\PCMCIA

<Enter> to continue <F3> to return to DOS

The next screen asks if you want to do an *Auto Configuration* or a *Custom Configuration*.

PCMCIA 10/100Mbps Ethernet Card Installation Program

**SELECTING AUTO OR CUSTOM CONFIGURATION**

To configure your PCMCIA 10/100Mbps Ethernet Card, you can select either Auto Configuration or Custom Configuration. Using the Auto Configuration option, the INSTALL program will automatically configure your PCMCIA 10/100Mbps Ethernet Card. Select Custom Configuration if the default configuration does not work for you or if you want to specify the interrupt (IRQ), I/O address, and memory address.

Auto Configuration

Custom Configuration

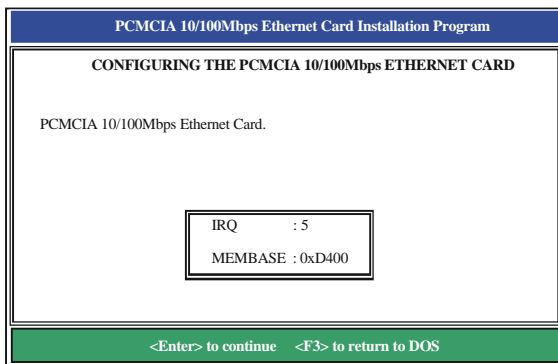
<Enter> to continue <F3> to return to DOS

Select **Auto Configuration** if you want to do a quick installation and use the default configuration settings. If you wish to individually set any of the settings, then select **Custom Configuration**.

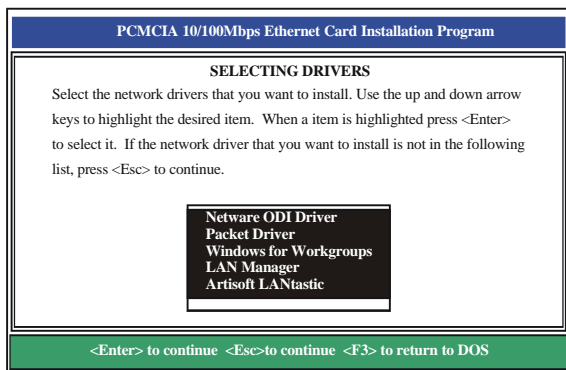
## Auto configuration

To use auto configuration, you must have Card and Socket service drivers installed. Refer to your computer user's manual for information.

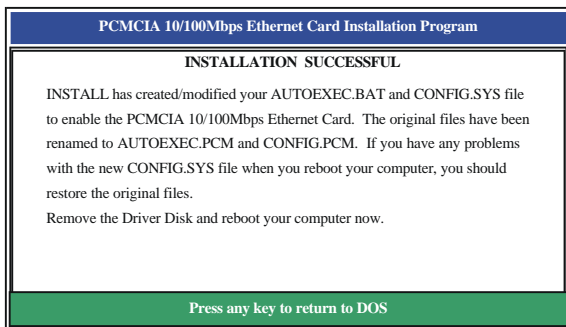
If you selected *Auto Configuration*, the program auto detects which IRQ, I/O Port, and memory space (MEMBASE) the Ethernet Card can use. After successfully auto-detecting the configuration, the program shows the following screen:



After the configuration process, you are prompted to select the type of network that you are installing. Select a network operating system from the list by moving the cursor to your selection and pressing <Enter>.



After selecting the network operating system, the INSTALL program will copy and modify files on your boot drive. Your CONFIG.SYS file will also be modified to include the Enabler Driver. You should see the following message if the installation has been successful:



## Custom configuration

To perform a custom installation, you need to select the Custom Configuration Menu after you begin the INSTALL program.

After selecting the Custom Installation Menu, you see a series of submenus prompting you to select an IRQ and I/O address.

## **Interrupt select**

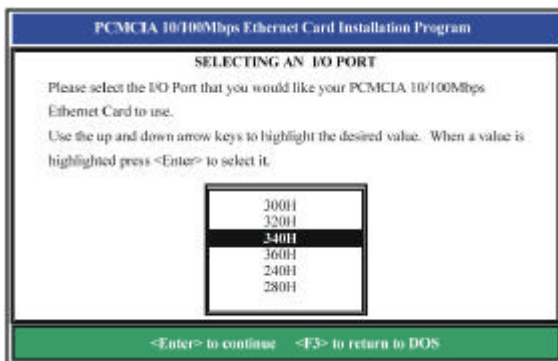
The first submenu is the Interrupt submenu. Move the cursor to the interrupt of your choice and select it by pressing <Enter>. Interrupts available for your Ethernet card include 3, 4, 5, 9, 10, and 11.

PCMCIA 10/100Mbps Ethernet Card Installation Program							
<b>SELECTING INTERRUPTS</b>							
Please select the hardware interrupt that you would like your PCMCIA 10/100Mbps Ethernet Card to use. Use the up and down arrow keys to highlight the desired value. When the desired value is highlighted, press <Enter> to select it.							
	<table border="1"><tbody><tr><td>3</td></tr><tr><td>4</td></tr><tr><td><b>5</b></td></tr><tr><td>9</td></tr><tr><td>10</td></tr><tr><td>11</td></tr></tbody></table>	3	4	<b>5</b>	9	10	11
3							
4							
<b>5</b>							
9							
10							
11							
<Enter> to continue    <F3> to return to DOS							

## **IO port select**

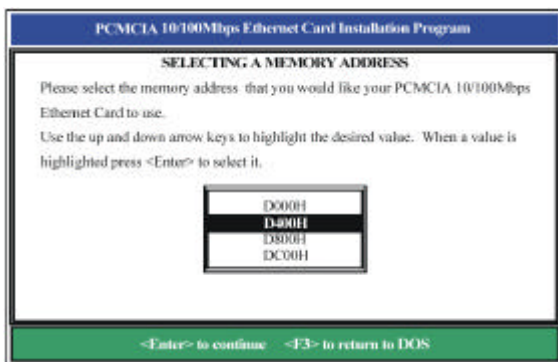
Move the cursor to the desired I/O address and press <Enter>. Available I/O Ports are 300H, 320H, 340H, 360H, 240H and 280H.





### Memory space select

Move the cursor to the desired memory space address and press <Enter>. Available memory space addresses are D000H, D400H, D800H, and DC00H.



## Manual installation

In most cases, the INSTALL program can make all system changes necessary for using your Ethernet Card. However, in some cases, you may wish to make changes manually. This section explains

how to manually make driver and file modifications to enable your card.

## Enablers

You can use CARDGO.EXE to enable the Ethernet Card.

### The CARDGO program

---

The program CARDGO.EXE communicates with the PC Card controller of your computer. This program is needed only for DOS environment network operating systems. You may install the Socket and Card Services to your notebook before executing the driver. If you do not have the Socket and Card Services program, please contact your notebook vendor.

The Install program will automatically add a line to your CONFIG.SYS file using the following syntax and format:

DEVICE=[path\_name]CARDGO.EXE [/IRQ=xx] [/IO=xxx]/[MEM=xxxx]/[?]

where

<b>[/IRQ=xx]</b>	Specifies the hardware interrupt of your card. Default value is 5. Valid IRQs are 3, 4, 5, ,9, 10, and 11.
<b>[/IO=xxx]</b>	Specifies the I/O address. Default value is 300. Valid port addresses are 300, 320, 340, 360, 240, and 280.
<b>[/MEM=xxxx]</b>	Specifies the memory address. Default value is <i>D400H</i> . Valid memory addresses are D000H, D400H, D800H, and DC00H.
<b>[/?]</b>	Displays all possible command syntax.

You can also run CARDGO.EXE by typing "CARDGO" at the DOS prompt or by including it as a line in your AUTOEXEC.BAT file.

After you executed CARDGO.EXE, you will see a display similar to the following indicating that the installation was successful:

<b>Socket</b>	:	0
<b>IRQ Number</b>	:	05
<b>I/O PORT Base</b>	:	300H
<b>MEM Base</b>	:	D000H

The list of error messages the client driver may display and the correction methods suggested are given in *Appendix B*.

## Driver installation

The following sections cover installation of the client driver for Windows NT 3.51, Windows for Workgroups 3.11, Netware 3X/4X, Microsoft LAN Manager, and Artisoft LANtastic Version 6.0.

### Microsoft Windows NT 3.51

Follow these instructions to install the Microsoft Windows NT 3.51 client for your Ethernet Card:

1. Insert the Ethernet Card into an available PCMCIA slot.
2. Boot the computer.
3. Click **Control Panel** in the main window and click the **Network** icon.
4. Click **Add Adapter**. Pull down the adapter's list and select **<other> Requires disk from manufacturer**, then click **Continue**.
5. Type "**E:\DRIVER\WINNT351**" (where "**E**" is your CD-ROM drive) and click **OK**.
6. Set the proper IRQ, I/O port, memory address settings, and connection type for this card.
7. Reboot the computer to complete the installation.

## Microsoft Windows for Workgroups 3.11

Follow these instructions to install the Windows for Workgroups 3.11 client for your Ethernet Card:

1. Run INSTALL.EXE, and choose Windows for Workgroups.
2. Run Windows by typing “WIN” at the DOS prompt.
3. Click the **Network** icon in the Main Program Group.
4. Click the **Network Setup** icon from the Network window.
5. Select the **Drivers** item from the Network Setup dialog box.
6. Select the **Add Adapters** item in the Option dialog box.
7. Select **Unlisted or Updated Network Adapter** when the Install driver field appears.
8. Type the path “**E:\DRIVER\WFW311**” (where “E” is your CD-ROM drive) and press <Enter>.
9. When the **Ethernet Card** dialog box appears, select the options step by step.
10. Follow the instructions on the screen.
11. Reboot your computer.

## Netware 3.X/4.X client

Follow these instructions to install the Netware 3.X/4.X client for your Ethernet Card:

1. Run the INSTALL program, and select the **Netware ODI Driver**.
2. Follow the instructions on the screen to complete the installation.
3. Reboot the computer.
4. When the computer reboots, log on to the network.

## Microsoft LAN Manager

Follow these instructions to install the Microsoft LAN Manager client for your Ethernet Card:

1. Run the INSTALL program, and choose **LAN Manager**.
2. Type "lmsetup" in the LAN Manager Directory. Press <Enter>.
3. Select **Network Drivers** in "Configuration". Press <Enter>.
4. Select **Add New Configs** and then press <Enter>.
5. Select **Other Driver** and press <Enter>.
6. Insert the driver disc into the CD-ROM drive and click **OK**.
7. Select the Network Adapter Driver, **Ethernet Card**, then click **OK**.
8. Press <Spacebar> to select the desired protocol.
9. Click **OK**. The message "Configuration Complete" appears.

10. Click **Save**, then press <F3> to exit.

## Artisoft LANtastic version 6.0

Follow these instructions to install the Artisoft LANtastic Version 6.0 client for your Ethernet Card:

1. Run the INSTALL program, and choose **LANtastic**.
2. Select **Artisoft LANtastic**, and specify C:\LANTASTI as the destination directory.
3. When the **Select network adapter** screen appears, choose **NDIS Support for Network Adapters**.
4. When the install program prompts you for the manufacturer's driver disk in the **Enter NDIS driver directory** screen, insert the driver disc.
5. Follow the instructions on the screen to complete the installation, then reboot the computer to start LANtastic.

## Chapter 5

# Installation for LINUX

This section covers the Ethernet Card driver installation for the Linux environment operating system.



*Before you install the PCMCIA 10/100 Ethernet card Linux driver, you must first configure the PCMCIA interface in your Linux working environment.*

---

### System Requirements

- Linux kernel version 2.0.x or later
- PCMCIA interface 3.0.x or later

You can get the latest version of the PCMCIA interface package from the one of the following URLs:

- <ftp://ftp.tux.org/util/pcmcia/>
- <ftp://sourceforge.org/pcmcia/>

After downloading the PCMCIA interface package, refer to the PCMCIA-HOWTO file for installation instructions.



## Installing the driver for Linux

Follow these instructions to install the driver for the Linux operating system:

1. Log on as “root”.
2. Copy the driver code from the Installation disc using the following syntax:

```
mount -rt iso9660 /dev/hdc /cdrom
cp /cdrom/driver/Linux/in0100-af-v1.51.tgz /tmp
cd /tmp
gzip -cd in0100-af-v1.51.tgz | tar xvf -
```

3. Generate the driver using the following syntax:

```
cd in0100-af-v1.51
make all
```



*If the path of your PCMCIA source is not “/usr/src/pcmcia”, you need to modify the “PCMCIASRC” variable of the “Makefile” file. Consult your Linux documentation for details.*

*If the kernel version is not 2.2.6, you need to modify the KERN\_VER variable in makefile.*

---

4. Install the driver using the following syntax:
5. Configure the PCMCIA 10/100 Ethernet card using the following syntax:

```
make install
cd /etc/pcmcia/config
```

Add the following text to the “config” file. The file must be in “write” mode.

```
card "10/100 Ethernet Card"  
version "PCMCIA", "10/100 Ethernet Card"  
bind "pcnet_cs"
```

or

```
card "PCMCIA 10/100 Ethernet Card"  
manfid 0x0274, 0x1103  
bind "pcnet_cs"
```

6. Configure the PCMCIA NIC interface using the following syntax:

```
vi /etc/pcmcia/network.opts
```

7. Reboot Linux using the following syntax:

```
sync;sync;reboot
```

***NOTES***

## *Appendix A*

### Troubleshooting

## Q&A for Windows environments

These guidelines give you tips to deal with some problems you may encounter while using the Ethernet card. If the problems remain unsolved, contact your dealer for assistance.

### Windows 95/98

**Problem:** Ejecting the card from the PCMCIA socket hangs or reboots the computer.

**Solution:** To prevent this phenomenon from occurring, stop the card by using the PC Card tool in the Control Panel or the PC Card icon on the taskbar before you remove the card.

**Problem:** The card cannot be detected when reinserted.

**Cause:** This is caused by certain unstable PCMCIA status lines when the card is removed and reinserted. The Windows 95/98 drivers may read an incorrect status during this period of signal instability, and fail to detect the correct status of the card.

**Solution:** The card can be detected by clicking "Refresh" in Device Manager.

## Windows 2000

**Question:** What is the Microsoft digital signature?

**Answer:** Drivers that pass Microsoft Windows 2000 certification receive a digital signature file from Microsoft. The Ethernet card does not have such a digital signature, however it is fully compatible with Windows 2000.

## *Appendix B*

### Enabler program error messages

#### CARDGO.EXE

Here is the list of error messages the CARDGO.EXE may display.

Error	Message	Solution
[Error 1]	"The PCMCIA controller is not present or recognized"	There is no PCMCIA controller on your computer. Install a PCMCIA controller from another computer.
[Error 2]	"There is no card in the PCMCIA slot. Insert the card."	Ensure that the PC card is correctly inserted into the PCMCIA slot.
[Error 3]	"The card in PCMCIA slot is not 10/100 Ethernet Card. Insert it"	Ensure that the PC Card in the notebook's PCMCIA slot is the Ethernet Card and that it is correctly inserted.
[Error 4]	"The I/O ports do not respond. Change to another one"	Change to another I/O port using /IO=xxx. Refer to "Manual Installation" in Chapter 4.
[Error 5]	"The I/O ports specified are invalid. Change to another one"	Valid I/O addresses are 240, 280, 300, 320, 340, and 360.
[Error 6]	"The IRQ specified is invalid. Change to another one"	Valid IRQ values are 3, 4, 5, 9, 10, and 11.

Error	Message	Solution
[Error 7]	"The memory address specified is invalid. Change to another one"	Valid memory addresses are D000, D400, D800, and DC00.
[Error 8]	"Enabler has been registered"	The client driver has already been registered. You don't need to install the client driver again.
[Error 9]	<ul style="list-style-type: none"> <li>• "Enabler can't be registered as a client"</li> <li>• "Can't map memory"</li> <li>• "Configuration can't be requested"</li> </ul>	<p>These three errors are concerned with Socket and Card services of the PCMCIA controller.</p> <p>Try using another third party Socket and Card service that supports this PCMCIA controller.</p>